

AMENDMENTS

In the claims:

1. (Currently Amended) A method of producing a flowable composition that sets into a calcium phosphate containing product, said method comprising:
combining:
 - (a) a setting fluid;
 - (b) dry reactants comprising a calcium source and a phosphate source; and
 - (c) a water-soluble contrast agent comprising a radio-opaque element other than calcium that is incorporated into said calcium phosphate product;
in a ratio sufficient to produce said flowable material comprising poorly crystalline calcium phosphate mineral, wherein said poorly crystalline calcium phosphate mineral includes atoms of said radio-opaque element incorporated into said mineral.
2. (Original) The method according to Claim 1, wherein said setting fluid comprises said water-soluble contrast agent.
3. (Original) The method according to Claim 1, wherein said dry reactants comprise said water-soluble contrast agent.
4. (Original) The method according to Claim 1, wherein said water-soluble contrast agent comprises a salt of a radio-opaque element.
5. (Original) The method according to Claim 4, wherein said radio-opaque element has a radio-opacity that differs from calcium.

6. (Original) The method according to Claim 4, wherein said radio-opaque element is one that is incorporated into a calcium phosphate apatite structure of said calcium phosphate containing product.

7. (Original) The method according to Claim 4, wherein said radio-opaque element is chosen from barium, oxalate, zirconium, tantalum and tungsten.

8. (Original) The method according to Claim 7, wherein said radio-opaque element is barium.

9. (Original) The method according to Claim 8, wherein said salt of said radio-opaque element is barium chloride.

10. (Previously Presented) The method according to Claim 1, wherein said ratio of said dry reactant to setting fluid ratio ranges from about 0.2:1 to 0.7:1.

11. (Original) The method according to Claim 10, wherein said flowable composition is a paste.

12. (Original) The method according to claim 1, wherein said setting fluid is a solution of a soluble silicate.

13. (Original) The method according to Claim 1, wherein said flowable composition sets into said calcium phosphate containing product in a period of time ranging from about 5 to 10 minutes.

14. (Original) The method according to Claim 1, wherein said calcium phosphate containing product has a compressive strength ranging from about 25 to 100 MPa.

15. (Previously Presented) A method of producing a paste that sets into a calcium phosphate containing product, said method comprising:
- (a) combining:
 - (i) dry reactants comprising a calcium source and a phosphate source;
 - (ii) a setting fluid; and
 - (iii) a water-soluble barium salt;wherein said dry reactants, setting fluid and water-soluble barium salt are combined in a ratio sufficient to provide for said paste; and
 - (b) mixing said combined reactants and setting fluid for a sufficient period of time to produce a paste capable of setting into a calcium phosphate containing product.
16. (Original) The method according to Claim 15, wherein said setting fluid comprises said water-soluble barium salt.
17. (Original) The method according to Claim 15, wherein said dry reactants comprise said water-soluble barium salt.
18. (Original) The method according to Claim 15, wherein said water-soluble barium salt is barium chloride.
19. (Original) The method according to claim 15, wherein said setting fluid is a solution of a soluble silicate.
20. (Original) The method according to Claim 15, wherein both said setting fluid and dry reactants comprise said water-soluble barium salt.
21. (Original) The method according to Claim 15, wherein said flowable composition sets into said calcium phosphate containing product in a period of time ranging from about 5 to 10 minutes.

22. (Original) The method according to Claim 15, wherein said calcium phosphate containing product has a compressive strength ranging from about 25 to 100 MPa.

23. (Original) A flowable composition that sets into a calcium phosphate containing product, wherein said composition is produced by the method according to Claim 1.

24. (Cancelled)

25. (Currently Amended) A kit for use in **[[a]]** preparing a flowable composition that sets in an in vivo fluid environment into a calcium phosphate product **comprising calcium phosphate molecules**, said kit comprising:

- (a) dry reactants comprising a calcium source and a phosphate source;
- (b) a setting fluid or components for producing the same; and
- (c) a water-soluble contrast agent **comprising a radio-opaque element other than calcium** that is incorporated into said calcium phosphate product, **comprising poorly crystalline calcium phosphate mineral, wherein said poorly crystalline calcium phosphate mineral includes atoms of said radio-opaque element incorporated into said mineral.**

26. (Currently Amended) A packaged calcium phosphate cement, said packaged cement comprising:

a tubular element separated into a first compartment and at least one additional compartment by a removable barrier;

- (i) dry reactants comprising a source of calcium and phosphate present in said first compartment;
- (ii) a setting fluid or components thereof present in said at least one additional compartment; and

(iii) a water-soluble contrast agent comprising a radio-opaque element other than calcium that is incorporated into a calcium phosphate product comprising poorly crystalline calcium phosphate mineral, wherein said poorly crystalline calcium phosphate mineral includes atoms of said radio-opaque element incorporated into said mineral, wherein said calcium phosphate product is produced upon combination of said dry reactants and setting fluid, wherein ~~[[is]]~~ said water-soluble contrast agent is present in either said first compartment, said at least one additional compartment or in a second additional compartment.

27. (Original) The packaged calcium phosphate cement according to Claim 26, wherein said removable barrier is a clip.

28. (Original) The packaged calcium phosphate cement according to Claim 26, wherein said removable barrier is a frangible barrier.

29. (Original) The method according to claim 26, wherein said setting fluid is a solution of a soluble silicate.

30. (Previously Presented) The method according to Claim 1, wherein said contrast agent is present in an amount ranging from about 10 to about 35% by weight.